I would like to comment on the NPRM 17-60 released by the FCC on May 19, 2017: I am a private citizen, a licensed Amateur Radio operator, and retired aerospace engineer. I am familiar with computers and the various forms of communication that computers use. However, I have never worked in or for the telecommunication industry. I am politically conservative and voted for President Trump.

Note: in my following comments, I use the term ISP to refer to the companies that provide the Internet connectivity service (e.g., OSI layers 1-3) and I use the term Internet Application Provider or IAP to refer to the companies that provide services via the Internet (i.e., layers 4 and above).

There were a lot of telecommunication decisions made during the previous administration(s) that I strongly disagree with. However, the FCC regulatory move toward what is being called "network neutrality" is not one of them. In fact, in my opinion, previous "neutrality" rules did not go far enough. Under-regulation can be just as bad for the country as over-regulation.

There are many statements made in 17-60 that are just not correct. It appears to me that the author does not have a clear understanding of how the network functions and is misinformed on the business case for a more neutral network regulatory structure. There are far too many such issues to detail with in depth, so I will limit my comments to cover only two areas:

- 1) <u>The Business Case</u>: In the comments by the chairman on p.p. 59,ff he states that the 2014 regulations hurt small ISPs. I live on an island of roughly 70,000 people and half of our island is serviced by a very successful small ISP (Whidbey Telcom). This company supports Internet neutrality on its web page. They don't appear to be concerned about neutrality's financial impact. I suspect that the regulations which hurt small rural ISPs probably have more to do with service pricing rules that are only expediently related to net neutrality goals. These pricing issues can be addressed in other ways (c.f., the very successful federal Rural Electrification Act of 1936). The regulatory changes of 2014 are too recent to accurately gauge their overall impact on infrastructure investment.
- 2) Monopolistic Internet Practices: In my opinion, it would be in the citizens' best interest if the government were to separate the ISPs from the IAPs. Allowing companies to provide both invites monopolistic trade practices. In the earlier part of the previous century, the federal government readily enforced antitrust laws. The consumer benefited from these actions and our country's annual economic growth was several times what it has been in recent decades. The original Internet topology was flat and it operated peer to peer. Ask anyone who has tried to set up a mail server at their home and they will tell you that it is nearly impossible now days. The additional protocols that have been implemented by the large mail application providers (google, yahoo, etc.) have imposed an excessive burden on those who wish to send and receive e- mail directly. The common ISP practice of imposing a premium on static IP addresses adds to that burden. There are other ways to message directly, but e-mail is the only universal way. In my opinion, the FCC has the authority and responsibility to the citizen to monitor and control these practices.

I believe that "final mile" providers should be allowed to price their service based on the cost of their investment. That's called "free enterprise". I believe that they should also be permitted to throttle service based on total usage and charge end users more for higher speed service (fatter pipes). However, providers should not be allowed to employ practices that interfere with competition. For example, they should not be allowed to throttle services in such a way that would give an unfair advantage to application services that they might also be providing. I believe that the federal government should ban ISPs from providing application services. Divorcing the ISPs from the IAPs

should not impact the infrastructure that interconnects the "final mile" ISPs; it would still be in the best financial interest of the IAPs to continue to invest in long distance interconnects. Such a divorce might impact "final mile" rates in certain cases. But, this pricing delta can be addressed in other ways and even if it is not, it would be a small price to pay for Internet freedom.

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